

**REMARKS**

Claims 1, 2, 4, 5, 7-11, 14-18, and 42-48 were pending in the instant application. Claim 8 has been canceled without prejudice or disclaimer and claims 42, 44 and 45 have been amended. No new claims have been added. Accordingly, claims 1, 2, 4, 5, 7, 9-11, 14-18, and 42-48 will be pending in the application upon entry of the instant claim amendments and additions.

The specification has also been amended at page 14 to incorporate text from the specification of provisional application no. 60/073,674. The content of the provisional application was incorporated by reference into the instant application as indicated on page 1, lines 3-4, of the instant application. Pursuant to M.P.E.P. §608.01(p), Applicants declare that the text added by amendment herein to page 14 of the instant specification is the same as the material appearing a page 11 of provisional application serial no. 60/073,674 filed February 4, 1998.

Support for the amendment to claims 42 and 44 can be found in the instant specification at least, for example, at page 5, lines 25-27; at page 9, lines 11-17; at page 14, lines 7-10; and at page 20, lines 19-22. Support for the amendment to claims 44 and 45 can be found in the instant specification at least, for example, at page 5, lines 16-17; at page 8, lines 28-31; and at page 9, lines 3-4. No new matter has been added. Applicants request that the specification and claim amendments be entered. For the Examiner's convenience, a copy of the claims which will be pending after the entry of this Amendment is provided as Appendix A.

Cancellation and amendment of claims should in no way be construed as an acquiescence to any of the rejections in the instant Office Action or any previous Office Action and were done solely to claim more fully Applicants' invention, and to expedite the prosecution of the application. Applicants reserve the right to pursue the claims as originally filed in this or one or more separate applications.

### ***Specification***

The specification has been objected to as failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner has requested correction of claims 10-11 and 42-48 which are “are directed to the limitations of ‘specific hybridization conditions’ which are not disclosed in the specification”.

Applicant first invites the Examiner’s attention to the fact that hybridization conditions are not recited in claims 46 and 48, rendering the objection moot with respect to these claims. In Applicant’s prior Amendment and Response filed April 17, 2000, an amendment was requested inserting specific hybridization conditions (*e.g.*, those recited in claims 10-11, 42-45 and 47) “at page 7, line 14”. Said hybridization conditions were incorporated by reference from the priority application serial no. 60/073,674. The proposed amendment to specification on page 7, line 14 was not entered because the word “Prefably” was not found. Applicant’s herein request that the recited text be inserted “at page 14, line 7”. Support for the amendment to the specification can be found in the priority application at least, for example, at page 11. No new matter has been added. Upon entry of the amendment to the instant specification, Applicants submit that recitation of specific hybridization conditions in claims 10-11, 42-45 and 47 will be fully supported.

### ***Information Disclosure Statement***

The Examiner asserts that “[t]he information disclosure statement filed 10 February 1999 (Paper No. 6) fails in part to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. In particular, the Examiner has considered references BR-BS “to the extent possible” in view of the fact that the references do not have a date in the form 1449. References AE-BP have been considered “to the extent possible” with the date listed on the 1449 having been considered the date “relevant for the submission of IDS”. Furthermore, the Examiner states that references AE-BP do not fully comply with provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the references “are sequences which are not in English language and require an explanation of the relevance to the claims in the application.”

Applicants appreciate the Examiner’s willingness to consider the references to the extent possible, given the unique nature of the references, *i.e.*, GenBank records and

BLAST search results. Applicants respectfully submit that references AE-BP are in the English language as the references contain sequence information listed according to standard genetic code, which is universally recited in characters of the English alphabet. Moreover, all other fields of data represented in the references, *e.g.*, authors, titles, annotations, etc. are clearly in the English language. As the referenced AE-BP are in the English language and have been considered “to the extent possible”, Applicants submit that the IDS previously submitted suffices to bring the Examiner’s attention to the information of which they and their attorney are aware. Should the Examiner *require* a supplemental Information Disclosure Statement upon consideration of the instant response, the Examiner is urged to call Applicants’ attorney at (617) 227-7400.

### ***Claim Rejections - 35 USC § 112***

Claims 42, 44, and 45 stand rejected under 35 U.S.C. 112, first paragraph, as “containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention”. In particular, the Office Action sets forth the allegation that claims 44 and 45 “encompass a species limitation of an amino acid ‘1018’ which is new matter”. Applicants traverse.

Claims 42 and 44 (and accordingly, dependent claim 45) have been amended to recite an amino acid “1017” as the N-terminal amino acid of the referenced C-terminal transactivating domain. The amendment is supported in the instant specification at least, for example, at page 5, lines 16-17; at page 8, lines 28-31; and at page 9, lines 3-4. Applicants respectfully submit that the amendment obviates the rejection of claims 42, 44, and 45 and respectfully requests reconsideration and withdrawal of the rejection.

Claims 8 and 42-45 stand rejected under 35 U.S.C. 112, second paragraph, as “being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention”. In particular, the claims stand rejected over the recitation “of the term ‘substantially identical’ which is ambiguous because it is not clear what is the metes and bounds of the term”. Applicants traverse.

It is Applicants position that one skilled in the art would readily understand the meaning of the term "substantially identical" as recited in the claims, in particular, in view of Applicants' definition of the term recited in the specification at amended page 9. However, in order to expedite an allowance of the instant application, Applicants have cancelled claim 8 and have amended claims 42-45 to recite that the claimed nucleic acid molecules encode proteins which are "at least 90% identical" to the recited reference sequences. The recitation of nucleic acid molecules encoding proteins which are "at least 90% identical" is supported in the instant specification at least, for example, as well as in previously pending claims 46 and 48. Applicants respectfully submit that the cancellation of claim 8 and amendment of claims 42-45 obviates the rejection of claims 8 and 42-45 under 35 U.S.C. 112, second paragraph and, accordingly, requests reconsideration and withdrawal of the rejection.

***Claim Rejections - 35 USC § 102 and § 103***

Claims 1, 4, 7-8, 10-11, and 42-48 stand rejected under 35 U.S.C. 102(a) as being anticipated by Anzick *et al.* ((AA); Science, 1997) and for reasons set forth in the previous office action and further stand rejected under 35 U.S.C. 103(a) as being unpatentable over Anzick *et al.* ((AA); Science, 1997) in view of Li *et al.* ((AC); PNAS, 1997) and Hardy *et al.* ((U); J. Clin. Endocrinol. Metabol., 1996). The Examiner relies on the teachings of Anzick *et al.*, Li *et al.* and Hardy *et al.* for reasons of record. Applicants traverse the rejections.

Applicants submit herewith an executed Rule 1.131 declaration (discussed in detail in the previous Amendment and Response) which antedates the Anzick *et al.* reference. Applicants submit that submission of the executed declaration which evidences that the invention disclosed in the present patent application was reduced to practice by the inventors prior to the effective date of the Anzick *et al.* reference. As such, the Anzick *et al.* reference is not available as prior art against the present invention under 35 U.S.C. §102(a). Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. 102(a) as anticipated by Anzick *et al.*.

Moreover, Applicants had previously submitted an executed declaration pursuant to 37 CFR §1.132 which indicated that Paulo J. Gomes, who is a co-author with inventors J. Don Chen and Hui Li of the Li *et al.* reference, is *not* a co-inventor of the subject matter described and claimed in the instant patent application. As indicated in the declaration, Paulo J. Gomes provided only technical assistance to Drs. J. Don Chen and Hui Li in performing the work described in the Li *et al.* reference. Accordingly, the Li *et al.* reference represents Applicants' own work, published within one year of the filing of the present application, and cannot be used against Applicants under 35 U.S.C. § 103(a). *In re Katz*, 687 F.2d 450, 215 USPQ 14 (CCPA 1958).

The Examiner has neither acknowledged nor commented on the sufficiency of the previously submitted declaration pursuant 37 CFR §1.132, yet has rejected claims 1, 4, 7-8, 10-11, and 42-48 based on a combination of references including the Anzick *et al.* references and the Li *et al.* references. For reasons discussed above, neither the Anzick *et al.* reference nor the Li *et al.* reference is available as prior art against the present invention. In the absence of the teachings of the Anzick *et al.* and Li *et al.* references, Applicants assert that the claimed invention is not obvious in view of the teachings of the only remaining reference, namely the Hardy *et al.* reference. Applicants respectfully submit that in view of the declarations pursuant 37 CFR §§1.131 and 1.132, the aforementioned rejection is rendered moot. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

**SUMMARY**

Applicants submit that all pending claims are presently in condition for allowance. If a telephone conversation with Applicants' attorney would expedite allowance of the above-identified application, the Examiner is urged to call Applicants' attorney at (617) 227-7400.

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Enclosure (executed Rule 131 Declaration)

**APPENDIX A**

1. An isolated nucleic acid molecule which encodes a RAC3 protein, comprising a nucleotide sequence at least 80% identical to the nucleotide sequence of SEQ ID NO:1.
2. The isolated nucleic acid molecule of claim 1 comprising the coding sequence of SEQ ID NO:1.
4. The isolated nucleic acid molecule of claim 1 comprising a nucleotide sequence at least 90% identical to the nucleotide sequence of SEQ ID NO:1.
5. The isolated nucleic acid molecule of claim 1 comprising the nucleotide sequence of SEQ ID NO:1.
7. The isolated nucleic acid molecule of claim 1, having a RAC3 activity.
9. An isolated nucleic acid molecule comprising a nucleotide sequence encoding a protein which comprises the amino acid sequence of SEQ ID NO:2.
10. An isolated nucleic acid molecule encoding a RAC3 protein comprising a nucleotide sequence which hybridizes under hybridization conditions of hybridization in 50% formamide at 42°C followed by washing in 1XSSC/0.1%SDS at 65°C to a nucleic acid molecule which is the complementary sequence of SEQ ID NO:1.
11. An isolated nucleic acid molecule at least 1000 nucleotides in length which encodes a RAC3 protein, wherein said nucleic acid molecule hybridizes under hybridization conditions of hybridization in 50% formamide at 42°C followed by washing in 1XSSC/0.1%SDS at 65°C to a nucleic acid molecule which is the complementary sequence of SEQ ID NO:1.
14. A vector comprising the nucleic acid molecule of claim 1.
15. The vector of claim 14, which is a recombinant expression vector.

16. A host cell containing the vector of claim 15.

17. A method for producing RAC3 protein comprising culturing the host cell of claim 16 in a suitable medium until RAC3 protein is produced.

18. The method of claim 17, further comprising isolating RAC3 protein from the medium or the host cell.

42. (Amended) An isolated nucleic acid molecule at least 200 nucleotides in length which encodes a RAC3 protein comprising an N-terminal steroid receptor interacting domain which is at least 90% identical to amino acids 613 to 752 of SEQ ID NO:2, wherein said nucleic acid molecule hybridizes under hybridization conditions of hybridization in 50% formamide at 42°C followed by washing in 1XSSC/0.1%SDS at 65°C to a nucleic acid molecule which is the complementary sequence of SEQ ID NO:1.

43. The isolated nucleic acid molecule of claim 42 which encodes a RAC3 protein comprising amino acids 613 to 752 of SEQ ID NO:2.

44. (Amended) An isolated nucleic acid molecule at least 200 nucleotides in length which encodes a RAC3 protein comprising a C-terminal transactivating domain which is at least 90% identical to amino acids 1017 to 1179 of SEQ ID NO:2, wherein said nucleic acid molecule hybridizes under hybridization conditions of hybridization in 50% formamide at 42°C followed by washing in 1XSSC/0.1%SDS at 65°C to a nucleic acid molecule which is the complementary sequence of SEQ ID NO:1.

45. (Amended) The isolated nucleic acid molecule of claim 42 which encodes a RAC3 protein comprising amino acids 1017 to 1179 of SEQ ID NO:2.

46. An isolated nucleic acid molecule which encodes a RAC3 protein, comprising a nucleotide sequence at least 90% identical to the nucleotide sequence of SEQ ID NO:1.